

## **REMARKS**

Claims 3, 4, 6-14, 16-22, and 25-33 remain in the application for consideration of the Examiner.

Reconsideration and withdrawal of the outstanding rejections are respectfully requested in light of the above amendments and following remarks.

Turning now to the art rejections, Claims 3, 4, 6, 7, 10, 25-28, and 31 were rejected under 35 U.S.C. § 103 as being unpatentable over Wilson in view of Hausman and further in view of Lee; and Claim 15 was rejected under us 103 as being unpatentable over Smart in view of Dallavalle.

Claim 15 was cancelled in the previous Response.

These rejections are respectfully traversed.

It is respectfully submitted that Wilson does not disclose or suggest the presently claimed invention including the automatic gain control circuit wherein the gain includes a canonical sign digit multiplier in independent Claims 3, 4, and 7 albeit defined as the method step of providing automatic gain control to the input signal wherein the gain is applied by a canonical signed multiplier in independent Claims 25 and 28.

Applicants agree with the Examiner that Wilson does not disclose the CSD multiplier.

It is respectfully submitted that Hausman does not disclose or suggest the automatic gain control circuit wherein the gain includes a canonical signed digit multiplier in the various forms in independent Claims 3, 4, 7, 25, and 28.

Hausman does not disclose an ADC as presently claimed and does not disclose that it would be used with an ADC.

The Examiner has used impermissible hindsight in this rejection.

Lee does not cure the above noted defects.

Applicants appreciate the indication that if Claims 8, 9, 12-14, 18-22, 29-30, 32, and 33 were rewritten in independent form including the limitations of the base claim and any intervening claims these claims would be allowable and that Claim 16 and 17 are allowed.

In light of the above, it is respectfully submitted that the present application is in condition for allowance, and notice to that effect is respectfully requested.

While it is believed that the instant response places the application in condition for allowance, should the Examiner have any further comments or suggestions, it is respectfully requested that the Examiner contact the undersigned in order to expeditiously resolve any outstanding issues.

To the extent necessary, Applicant petitions for an Extension of Time under 37 CFR 1.136. Please charge any fees in connection with the filing of this paper, including extension of time fees, to the deposit account of Texas Instruments Incorporated, Account No. 20-0668.

Respectfully submitted,



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